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A SIBERIAN WILDERNESS: NATIVE LIFE ON THE LOWER YENISEI*

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If it is true that man is to a marked degree what his surroundings have made him, it is no less true that he struggles to shape those surroundings to a form that shall coincide with his imaginings of things as he would like them to be. If he cannot by manipulation of what is tangible about him modify his environment to his taste, he is likely to set up in the realm of his imagination a place of fictitious solace in which he can find relief from circumstances which prove too hard. Nature is adamant, and even by strenuous labor and in the most favorable circumstances he can no more than scratch on the surface a fleeting picture of what face he would have her show to him. Transplant him to a region where sun and soil are less complaisant, and he will trace strange pictures in the snow and hold as articles of faith tales of heroes or saints or shamans whose virtue (that is, power to transcend the limits of human endeavor in conflict with irrevocable nature) lies in producing conditions comparable to those in which toil could produce crops and blossoms and practicable paths. Yet these very figments of his brain are the products of his surroundings. He paints on the canvas of things as they are a picture of conditions suggested as their opposite, just as the sight of an empty platter conjures up a vision of heaped viands to the eye of a hungry man. So the Tungus of the Arctic wilderness sets beside the grave of the shaman, who to him represents the acme of human, or super-human, success against the old enemy nature, or super-nature, a crude arrangement of trimmed logs to stand for the horse which he has never seen. The tribal memory has preserved through the ages this relic of the days when the reindeer, which is now his only mount, was but the quarry of the hunter. And so the Russian monks on the fringes

* Some notes concerning a year's stay in the Arctic on behalf of the University of Pennsylvania Museum. For an account of the expedition of which the author was a member see *Geogr. Rev.* for September, 1916 (Vol. 2, pp. 229-230).

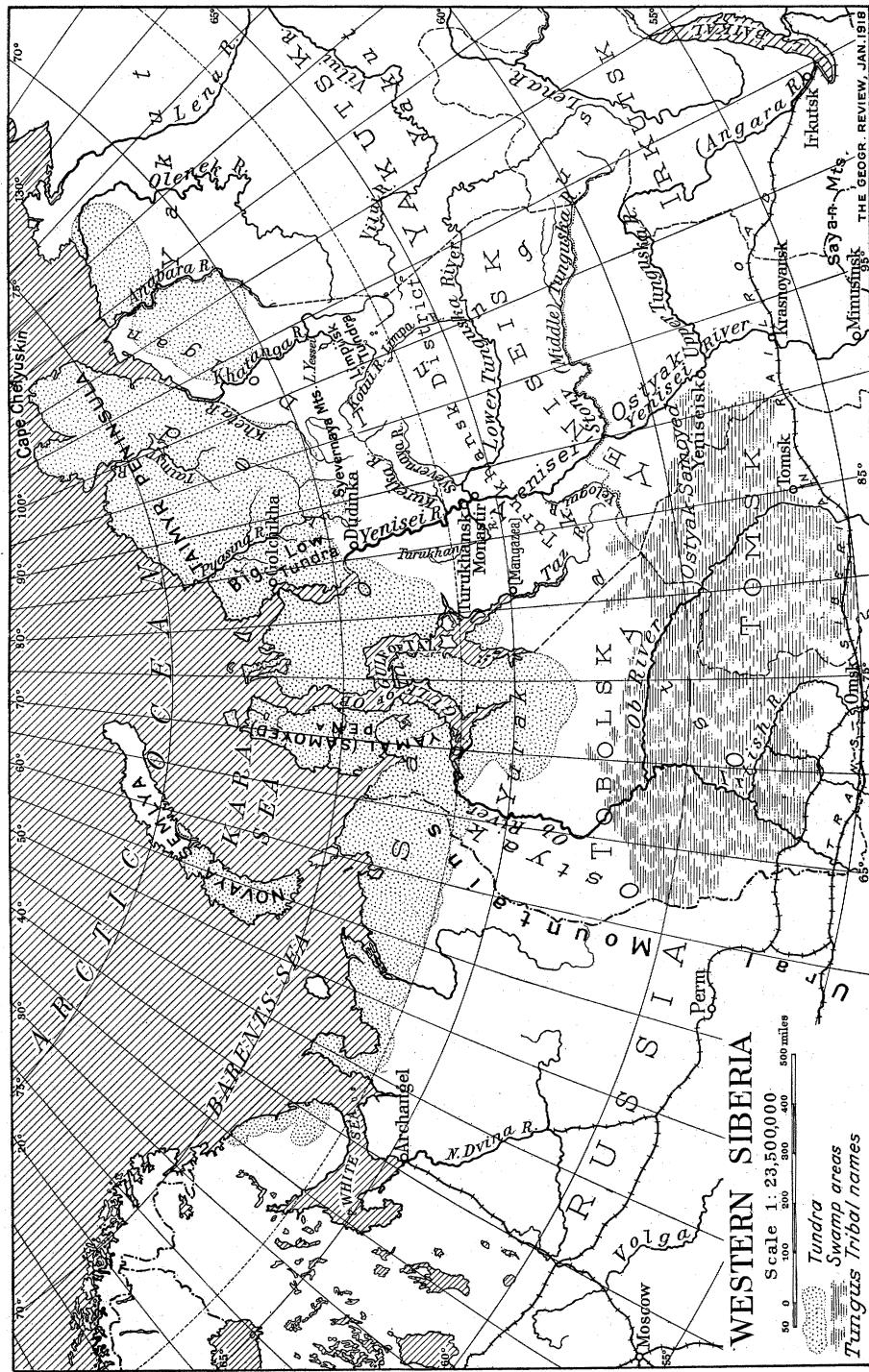


FIG. 1.—Sketch map of eastern Russia and western Siberia showing the location of the geographical features and the native tribes mentioned in the text.

Fig. 1—Sketch
Scale, 1:23,500,000.

of the Arctic embroider the legend of an uncanonized saint, whose body was brought by a pious brother to grace their foundation, with fantastic touches of a flowery mead in which the uncorrupted corpse lay in mid-winter and of blossoms which hedged a firm pathway through the marshes when Tichon brought the good Vasili to his shrine.

The Turukhansk District of the Yeniseisk Government of Siberia, with its sparse population of native tribes still very largely unmodified by contact with Russians, and its conditions, Arctic or sub-Arctic, little modifiable by any human means, affords an excellent field for the study of people living among surroundings as uncongenial to human life as can well be conceived—people who have adapted themselves, nevertheless, to those conditions with a contentment and cheerfulness sustained by that unquestioning faith which sees flower beds in snowdrifts and steeds fit for shamans in the frozen tundra. The comfortable balance struck between things as they are and things as they might be, or the ignorance of what things might be elsewhere, has been disturbed only by the meddlings of their civilized masters, whose profitable business it is to awaken in them desires for things they never knew they lacked and to acquaint them with the prices the civilized world pays for its luxuries and the gratification of its lusts.

EARLY SETTLEMENTS

The Russians long ago reached at any rate the outskirts of the Turukhansk District; and, unsuitable as the region is for colonization by Europeans, small Russian settlements are scattered along the banks of the Yenisei as far as its mouth, dwindling, as the Arctic Circle is neared and passed, from groups of two or three houses to solitary log huts at great distances from one another. The merchants of Novgorod in the eleventh century sent goods by sea to the country about the mouth of the Ob and Taz and reached the same region also by making use of the system of rivers and lakes which intersects the Yamal, or Samoyed, Peninsula between 70° and 70° 20' N. latitude.¹ The *ostrog* (stockaded post) of Mangazea on the Taz grew into a flourishing settlement between 1581 and 1762, at which latter date it was destroyed by the Yurak. For a considerable part of this time there was a busy trade route between Mangazea and the coast of the White Sea; and the Moscow merchants received valuable cargoes of furs in exchange for their shipments of tea, spirits, gunpowder, and guns to the natives. Mangazea was the first administrative and commercial capital of Siberia, after the “conquest” of Yermak put the official seal on the process of penetration, peaceful and otherwise, which had long been going on. In 1610 was founded Turukhansk on the Turukhan River, which flows into the Yenisei from the northwest some distance north of the 65th parallel. Turukhansk was for a long time the administrative center of the Turukhansk

¹ See B. M. Shitkov: *Die Erforschung der Samojedenhalbinsel (Jamal)*, with map, 1:1,750,000, *Petermanns Mitt.*, Vol. 57, Part II, 1911, pp. 11-14, 67-71.—EDIT. NOTE.

District; but in 1909 this distinction passed from it to the village of Monastir on the opposite bank of the Yenisei, where it is joined by its great right tributary the Lower Tunguska. Locally this latter settlement is still known as Monastir, though its official designation, in spite of the crumbling survival of the other group of log huts, is now Turukhansk. It received the name Monastir from a monastery, still in existence, founded at this spot in the middle of the seventeenth century.

In the sixteenth century English merchants trading with Archangel, in the course of attempts to discover a Northeast Passage to the Indies, reached the Ob. By the end of that century Dutch mariners were rivaling the English in the White Sea trade and the search for a Northeast Passage, although handicapped in the competition through the granting to English traders by the Moscow government of special privileges denied even to Russians.

The Russians apparently became suspicious of this active movement of foreigners towards the inhospitable coasts of their new possession and decided to keep the trade with Siberia exclusively in their own hands. The Moscow government began to build sea-going ships for the transport of goods between Archangel and Mangazea. At this time—the first quarter of the seventeenth century—colonization of tundra and *taiga* was much more extensive than at present. Mangazea, Turukhansk, and Yeniseisk became important settlements. Finally, in 1620, the sea route, closed to foreigners in 1616, was barred even to private Russian traders, and communications with Mangazea were kept up only for the benefit of the administration, which continued to receive abundant *yassak* (tribute from natives) and large quantities of valuable furs, reckoned the perquisite of the government. The result was that colonization languished. Mangazea, long before its destruction in 1762 by the Yurak, was almost deserted. What traffic there was, was kept up by the land route across the Yamal Peninsula. Not a keel furrowed the Kara Sea for 250 years.

THE KARA SEA ROUTE

In 1859 a rich Siberian merchant, by the name of Sidoroff, conceived the idea of reopening the Kara Sea route, which is practicable for a few weeks during the summer. It took him fifteen years to accomplish his purpose; and in 1874, Captain Wiggins, an English sailor, working in co-operation with Sidoroff, brought his steamer into the Yenisei. Next year Norden-skiöld, in the *Vega*, reached the mouth of the river. In 1876, for the first time, European (English) goods reached Yeniseisk by steamer direct from Europe. In the ten years from 1877 to 1887 thirty-four steamers attempted the passage, but only fourteen with success. Between 1887 and 1898, English traders having been given the privilege of using this route without paying duty on goods brought by it, more money was invested, and a greater degree of success was attained. During these eleven years, thirty-



FIG. 2—A Yenisei-Ostyak in the outskirts of the *taiga*, or northern forest, near Monastir-Turukhansk, 50 miles south of the Arctic Circle. The Yenisei-Ostyak bow is the type of the compound bows used throughout the Turukhansk District. The making of bows for their neighbors is still an industry of the Yenisei-Ostyak. (All photos, except Figs. 4, 9, and 10 from the University of Pennsylvania Museum.)

six vessels made the voyage, and cargoes averaging about 1,000 tons a year, consisting chiefly of mining and agricultural machinery, reached Siberia by this route.

This trade did not a little to develop civilizing influences in Siberia; but in 1898 restrictions on imports were re-imposed, and, as a consequence, not a single foreign vessel passed through the Kara Sea to Siberia for six years. In 1905 duties were again removed, and twenty-two vessels came to the northern coast of Siberia. The vacillating policy of the Russian government in the matter of these imposts manifested itself more than once in the following years, with the result of discouraging enterprise. Some two years before the war, however, a company was formed with directors in London, Christiania, and Petrograd for the purpose of promoting trade with central Siberia via the Kara Sea and the Yenisei, and what promised to be regular traffic between Krasnoyarsk and western European ports had been established.²

THE TURUKHANSK DISTRICT

The Turukhansk District forms the northern portion of the Yeniseisk Government, the administrative division of Siberia which includes the west-central part of the colony (map, Fig. 1). Its northern extremity, Cape Chelyuskin in the Taimyr Peninsula, is the nearest point of the Eurasian mainland to the Pole. It includes the greater part of the basin of the lower Yenisei, from the Stony (Middle) Tunguska to the Arctic Ocean, and marches with the outer limits of the Ob and Lena basins on its western and eastern borders respectively. It is officially stated to comprise an area of 1,616,734 square versts (about 718,500 square miles). Its surface is intersected by a large number of streams, many of considerable size, of which the chief, apart from the great main stream of the Yenisei itself, are the right tributaries of the Yenisei, the Middle and Lower Tunguska, and the Kurëika; its left tributaries the Kas, the Yelogui, and the Turukhan; flowing north, to the west of the Yenisei, the Taz; flowing north, to the east of the Yenisei, the Pyasina, the Taimyr, the Kheta-Kotui-Khatanga, and the Anabara; flowing southwest and south, respectively, into the Lower Tunguska, the Syevernaya and the Limpa. These, with their tributaries small and large, make of the region east of the Yenisei particularly, except for a large portion of the rugged Taimyr Peninsula, a veritable network of waterways, the highways of the nomadic inhabitants. For the snow-covered ice of the rivers and lakes is not only a guide for direction through an otherwise trackless wilderness but affords easy going for the reindeer. The lower Kotui to its junction with the Khatanga drains a region abounding in small lakes, forming a chain with Lake Yessei at its northeastern extremity. This lake is one of the landmarks of the somewhat indefinite boundary line

² See the note in *Geogr. Rev.* for February, 1917 (Vol. 3, pp. 151-152), and the references contained therein.—EDIT. NOTE.

between Yakut and Tungus territory. The Tungus hereabouts are called by the Russians Limpiausk Tungus and their land the Limpiausk Tundra, from the Limpa River.

The country to the east of the Yenisei is rugged, with elevations which in some places deserve the name of mountains. Even the so-called Big Low Tundra between the Pyasina and the estuary is for the most part a rolling moorland at an appreciable elevation above sea level. West of the river, and especially in the basin of the Taz, the land lies quite low. The extensive highlands between the headwaters of the Pyasina and the lacustrine region are usually known as the Syevernaya (Northern) Mountains.



FIG. 3—Yenisei-Ostyak fishing encampment on the Yenisei near Turukhansk.

The whole region is thus situated within the great lowland comprising that part of Siberia which lies between the Caspian and Aral basins and the lower Lena. The lowest portion of this, within Siberia proper, is the great marshland on the lower Irtish and middle and lower Ob, extending northeastward to the valley of the Taz. East of the Yenisei this region can only be characterized as a lowland by comparison with the great mountain-masses which form an almost unbroken chain, stretching in a great curve with a generally northeastwardly trend from Afghanistan to Bering Strait. The eastern portion of the Turukhansk District is an extensive plateau crossed by rugged chains of hills whose summits are from 500 to 1,500 feet above sea level. This is the rock- and lichen-tundra of Middendorff.³ In the valleys of the numerous streams strips of forest extend quite far north, dwindling in extent and in the size and height of the trees from a fairly normal growth and variety—larch and birch and pine—on the Lower Tunguska, to the straggling, stunted, almost limbless larches of the upper Khatanga and Kotui. About the estuary of the Yenisei the only wood is

³ A. T. von Middendorff: *Sibirische Reise*, 4 vols. and atlas, St. Petersburg, 1848-75.

driftwood—there is abundance of that brought down from the *taiga*, or forest region, far to the south; and the tundra here is lower, though by no means an undiversified level—Middendorff's moss, or *Polytrichum*, tundra.

CLIMATE

One might almost say that there are only two seasons in the northern Siberian year. In May the temperature rises abruptly; it falls with almost as great suddenness in September. At Golchikha, at the head of the estuary of the Yenisei, in $71^{\circ} 45'$ N., the sun for more than two of the three summer months is above the horizon. The change from winter to summer conditions is accomplished almost at a bound. In the middle of June the



FIG. 4—Skyline in the tundra near Golchikha. Reindeer of a Dolgan herd. (Photo from M. A. Czaplicka, Oxford.)

flats at the confluence of the little Golchikha with the Yenisei are still covered with snow, which also fills the gorges in the flanks of the low hills edging the tundra behind. It is the most desolate picture that can be imagined. The sun shines pallidly through the gray mist, which fails to conceal the brown crumbling hillsides that for nine long months have been mercifully hidden under a decent shroud of snow. The silence, broken only by the raucous tones of hovering gulls, is well suited to the place. One seems to have come upon an earth grown old and mouldered, dead beyond hope of awaking. In a few days you will be walking along those hillsides ankle-deep in flowers purple, blue, and gold, or wading across the flats from mound to mound of veritable garden-beds.

THE TUNDRA

On the banks of the river one does not speak of being in the tundra. This is a highway which connects the settler or transient voyager with a living world; to the nomad of the tundra, it is only a place to which one comes with nets to get supplies for the winter larder or to pay in labor some part of the debt which the trader will never wholly write off. To this class of sojourners upon the river the waste of waters in the great stream—six miles wide, a little below—shows no friendly, familiar face. When the

time to strike his tent comes he does not say, it is true, "I am going home," but "I am going to the tundra," which is, in effect, the same thing. Then he packs his tent and so much of his catch as the traders have left him, and his scanty household goods, upon two or three or half a dozen sledges, and, since snow has not yet fallen or at any rate is not yet deep, harnesses four or five reindeer to a sledge, instead of the winter team of two, and is whisked off over the low hills to the wide spaces where he can call his soul and his time his own.

The going is not hard. Even on the hilltops the earth is soft enough usually, and, where on the wide stretches of plain it is too soft for walking to be anything but a labor for humans, the light, broad-footed deer splash along at a quite respectable pace. The surface is a series of terraces, so to speak, at a higher or lower level, separated by low hills, or diversified by areas of uneven ground, a confusion of shallow valleys and rounded hillocks. Each terrace is at first to all appearances flat; but it grows marshier as you advance, and it soon becomes evident that you are in a sort of shallow basin, the rim of which forms the horizon on every side, shutting off the view of hills beyond. It is in a spot such as this that the illimitableness and monotony of the tundra come home to you. It is only on exposed hillsides or banks, on which the sun's rays fall almost perpendicularly, creating oases of warmth in the ice-chilled barrenness of the soil—for everywhere there is eternal ice from eighteen to thirty-six inches beneath the surface—that the bright blooms are spread to relieve the eye. Here there is nothing but the tussocks of brownish sour-grass and sphagnum moss and the dirty reddish brown water that can neither run off nor become absorbed in the thin layer of unfrozen mud. "No variety, no shadow, no night. Everywhere calm and silence. The whole summer through, the one long endless summer day broods over the far northern tundra, its light the pale gleam of a moonlike star veiled in mist."

Ground like this affords, of course, no substantial sustenance for man. Along the river from Yeniseisk as far north as old Turukhansk some of the more enterprising spirits among the settlers do succeed in raising scanty crops. Turnips, radishes, and cabbages can be coaxed into growing even near Turukhansk. Aside from the severity of the climate, the swampy character of the ground on the left side of the Yenisei and the stony barrenness of the right bank have to be reckoned with. As for the natives in their forests and heaths and moss pastures, they do not even make such use as they might of the limited resources that unassisted nature offers in this respect. The women and children gather, in a somewhat casual way, the cranberries and huckleberries which are fairly numerous in some parts of the region. These are eaten raw with milk—a royal treat, for the fawns take most of the scanty yield, and milk is very sparingly used for any human purpose. Or the berries are dried and mixed with "Tungus bread," the smoke-dried and pounded flesh of reindeer or of moose. Bark and roots

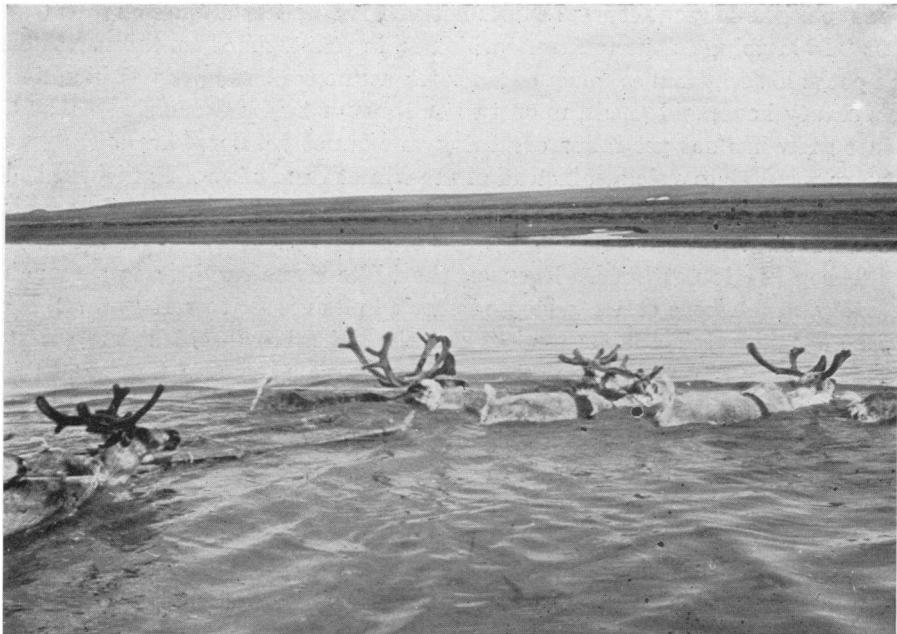


FIG. 5.



FIG. 6.

FIG. 5—Reindeer teams swimming a stream in the Big Low Tundra near the Arctic Coast. They are being towed by a man in a boat, not seen in the picture.

FIG. 6—Summer sledging in the tundra near Golchikha. The soft carpet of the moss tundra affords almost as good a surface in summer for sledging as does its snow cover in winter.

The man is a Samoyed. The long stick is the *horrei*, or goad. It is used not only to urge on the deer, but as an aid in guiding the team, which is controlled otherwise only by a single long rein attached to the headstall of the leader.



FIG. 7.



FIG. 8.

FIG. 7—Tungus boys: a summer *irgish* (trek). The weapon is the *arkas* or *palma*, used in clearing brushwood or blazing a trail in the forest. It is the old Tungus spear or halberd and is the only weapon with which the Tungus hunter will face a bear.

FIG. 8—Tungus pack train in the Limpiiisk Tundra—the country between the Yenisei (north of the Lower Tunguska) and Lake Yessei. This is the home of the Limpiiisk Tungus, an important group of the people of that stock who are found within the Yeniseisk Government.

are only eaten as a last resource, when the spring or autumn hunting has failed and famine threatens the owners of small herds of reindeer.

ARCTIC HYSTERIA

It has been observed by Schimper⁴ that the two most salient characteristics of the polar climate are temperature and illumination—the one as manifested in the long cold winter and the short cool summer, the other in the long winter night and the short summer day. His statement refers to the effects of the phenomena on the plant life of the Arctic. But there can be little question of the profound influence of these abnormal conditions, not merely on the physical but also on the mental constitution of people long subjected to them. Especially would this seem to be true of the periods of continuous daylight and of dark. Apart from the necessity of making the most of the long day, when it comes, for necessary tasks and thus shortening the hours of rest, there seems to be a kind of stimulation of the nervous system which urges one to a feverish and purposeless kind of activity. Russian settlers, especially newcomers, are more obviously affected in this way, but it is clearly perceptible also among the natives. The coming of the long, brooding winter night is followed by a kind of reaction, the effects of which are not always so obvious. There is no general depression of vitality apparent. Among the natives the dark midwinter with the necessary cessation of most kinds of activity is the special period for the making and returning of visits to distant friends and relatives; the tents are veritable hives of cheerful conversation and chaff. But none the less this is the time when the so-called "Arctic hysteria" is apt to show itself under circumstances tending to favor a lapse of self-control. This is the time when you are likely any night to be startled out of your sleep by the sudden bursting into song, plaintive and weird, of a sleeping Tungus tent-fellow. This will continue indefinitely if he is not awakened, and he will have then no recollection of his dream song. The Limpisk Tungus do not recognize singing in one's sleep as a sign of mental disorder, as they do some of the other forms of "Arctic hysteria"—classified by M. A. Czaplicka in "Aboriginal Siberia."⁵ Such, for instance, is a form of hysterical seizure, for which they have a special name, in which the patient sings improvisations of his own which are likely to contain absurd exaggerations or laughable glorifications of himself. The last instance remembered in the Limpisk Tundra was when there was an epidemic of this kind about ten years ago, following a famine, in which one of these megalomaniacs was killed by three fellow-tribesmen, themselves also apparently affected by the disorder, who resented his frenetic boastings, in which he represented himself as a god. The natives of northern Siberia, and especially those of more recent immigration, seem to be peculiarly susceptible to these expres-

⁴ A. F. W. Schimper: *Pflanzen-Geographie auf physiologischer Grundlage*, Jena, 1898, p. 698.

⁵ Oxford, 1914 (reviewed in *Geogr. Rev.*, Vol. 1, 1916, p. 161).

sions of emotional instability. Typical cases are rare among Europeans. It would seem that the older inhabitants of the region have had time to adapt themselves mentally, so that the abnormalities or extremes of the environment have become normal to them, while the Russians have not been subject to a sufficiently long accumulation of the peculiar influences to be so profoundly affected.

REINDEER HERDS

All the tribes are reindeer nomads. The Samoyed (Ostyak-Samoyed and Yurak) of the north are the oldest western exponents of this culture, as they are the oldest of the present inhabitants of the extreme north from the Taimyr Peninsula to Russian Lapland. The Dolgan, Yakutized Tungus, have thrust themselves northwestward into Samoyed territory near the right bank of the Yenisei, from the lacustrine country where the Yakut, pressing westward from the Vilui basin, are still crowding the Limpisk Tungus on their eastward border. The Dolgan show their relatively late adoption of reindeer culture by the smallness of their herds and their habit of riding their reindeer, even where they are in closest contact with the Samoyed, who have not even a word for saddle and refer to the Dolgan double cushion somewhat sneeringly as "the sledge on the back."

It cannot, of course, be said that the domestication of reindeer is a necessary condition of survival in the Arctic, since, even in northern Siberia, there are tribes, or parts of tribes, which have no herds and manage without them apparently as well as the people of Arctic America. But it does seem at least that the maintenance of this culture, once adopted, is necessary to the survival of a group. It is the ravages of anthrax among their herds, at least as much as the evil influences of a closer contact with Russians than has fallen to the lot of the other tribes of the Turukhansk District, that is accountable for the degeneration and approaching extinction of the so-called Yenisei-Ostyak. It is the impoverished Samoyed, i. e. the man whose herd has so dwindled in numbers that it has become necessary for him to make the pursuit of fishing his chief employment, who, through the necessity of keeping close to the river, has fallen into the hands of the traders and sunk into peonage and alcoholism. Among the Limpisk Tungus even, who are, except the Yakut and the Russians, the latest arrivals in the Arctic, the prime test of a man's social standing is the size of his herd. Very few of them have herds that will compare in numbers with the five or ten thousand deer of a wealthy Yurak. But a man whose not very remote forebears had no more than, say, ten or twenty deer and who was held in esteem principally for his prowess in hunting, if his herd does not considerably surpass the ancestral figure, is now spoken of with some accent of disparagement as a "fisherman": he is forced, that is, to keep ice holes open in river or lake throughout the winter in order that he may keep his larder supplied with the aid of gorgé and lure. The larger the herd, the more draught or riding

animals are available and the more mobile, therefore, is the hunter; he can thus follow game far afield in a bad season and lay up for the dark mid-winter, when hunting is impossible, a good store of meat. In a society where the hardships of the struggle for existence are unmitigated by poor-laws, there is not much between the weakest and the wall.

CLOTHING

As the Samoyed (including the Yurak) have been longer in the Arctic than any of the other existing populations, except the vanishing Yenisei-Ostyak, it might be expected that the peculiar conditions would have left a deeper impress on their mental life than they have on that of their neighbors; and indeed much evidence in support of this conclusion might be adduced. So far as the more obvious aspects of the outer life of all these peoples is concerned, they are, broadly, very similar, in correspondence with the sameness of conditions throughout the Polar regions. The necessity for protection against the extreme cold—away from the coast and in the highland valleys, which act, so to speak, as accumulators of cold air, over 100 degrees of frost being not unusual—has led to the contrivance of a sort of clothing which is extraordinarily well-suited to its purpose. The doubling of outer garments, coats and boots, usually of reindeer pelts, provides an insulating air space which keeps the cold out. Differences in the arrangement and decoration of these garments correspond to the tribe to which the wearer belongs. The Samoyed wears the inner of the two coats with the hairy side turned in, that of the outer, outwards; the Tungus vice versa, or the latter's hooded outer coat may be of hide without the hair.

METHODS OF TRAVEL

The sledge is another feature common to all these Arctic cultures. The type throughout this region is the light Samoyed sledge with high upcurving runners and a platform raised from two and a half to three feet above the ground. This is used both summer and winter by the Samoyed. Its use in summer would be impossible in the rugged, partially forested country of the Limpisk Tungus. The use of sledges by the latter is indeed a recent innovation, which they say came in by borrowing from the Samoyed only three or four generations ago. Many Tungus still practice, even in winter, the "old-time *irgish*"—the pack-train of reindeer led by a mounted woman when moving camp. The old and the new mingle here; as likely as not the man precedes the column, traveling light in an unladen sledge. Snow-shoes are wooden, upturned in front, approximating the type of the ski, though much shorter and wider. The best are shod with reindeer skin.

Traveling in the Limpisk Tundra is not so comfortable as it is farther north. There is a route to near Lake Yessei from Dudinka by which the Russian traders travel in great luxury. Their vehicle is the *balok*, a box-like canvas-covered fur-lined contrivance on runners, drawn by six or eight



FIG. 9.



FIG. 10.

FIG. 9—Lake Uchun, a mineral water lake in southern Siberia, south of Krasnoyarsk. Frequented as a *kur* by the Russian population. (Photo from M. A. Czaplicka, Oxford.)

FIG. 10—On the Yenisei between Krasnoyarsk and Minusinsk in the southern part of the Yeniseisk Government. This is the sort of country in which the ancestral stock of the Samoyed led the wandering life of hunters, before they were driven northward to face the still more rigorous conditions of the tundra. (Photo from M. A. Czaplicka, Oxford.)

deer. It carries a stove and can be made quite comfortable, no doubt, for one who is accustomed, as the trader is, to super-heated stuffy rooms. This route, too, is the one almost invariably used by these people and by officials, and along a part of its length there is a nondescript half-caste, more or less sedentary population, the offspring of exiles, criminal and other, and of the traders. Anyone who wishes to know the uncontaminated native will eschew the "comforts" of the northern route. The rocky tablelands and partly forested valleys of the Turukhansk-Yessei route are impassable to the heavy *balok*, and the light native sledge is the only satisfactory vehicle. So the Limpiisk people are comparatively free from undesirable visitors.

One keeps to the river valleys as much as possible. Here the snow is fairly deep, and the smooth motion of the sledge is liable to interruption only through a few trifling circumstances, such as the not infrequent tendency of a pair of deer to choose each its own side of a tree to pass on, with the resulting entanglement of antlers, traces, and other gear. Or you may come to a bit of treacherous ice underlain by rapids in the bed of the stream on whose frozen surface you are traveling, and run the risk of getting your feet wet—a serious matter in temperatures which have to be measured by spirit thermometers. But the valley trails are cushioned ease compared with the going on the stretches of bare rock-tundra plateau which often have to be crossed. The precipitation of snow in this country is small, and the fierce winds which sweep the bleak highlands do not let much of it lie. Your sledge progresses in a series of leaps and bounds from one miniature boulder to another, and you spend your hours in a sort of dull aching wonder as to which will go to pieces first, your own racked skeletal framework or that of your sledge. Where a number of people travel in company the usual procedure is to rope several sledges, each with its team of two reindeer, together, while the man who knows the country best acts as driver of the train. In going down the precipitous slopes which form the approaches to the plateaus no one thinks of getting off his sledge. You go from top to bottom in a series of breathless rushes, checked only by a projecting ledge or boulder which brings you up with a round turn, the runners of your sledge on top of the sledge in front, your team of reindeer fairly underneath you, or at luckiest, sprawled kicking and panting with terror on each side. Fortunately the traces are long, and the sledges light, or the teams of a train would be practically exterminated whenever such an escarpment has to be descended.

DWELLINGS

The necessities of a wandering life require a light, portable dwelling. The *chum*, or tepee, is essentially the same throughout: of reindeer skin, usually, though the Yenisei-Ostyak make their summer tent cover of birch bark. The *golomo*, or conical tent-shaped log hut of the Limpiisk Tundra, is a mere translation of the skin tent into logs. *Golomos*, or, more rarely,

rectangular *balagans* copied from the Russian settlers' shacks on the river, are occupied during two or three months of the winter by some of the wealthier Tungus and Yakut of the forest border. The *golomo* may have sometimes a backed open hearth below the smoke hole. The backing con-



FIG. 11—A Tungus shaman in ceremonial dress.

sists of clay-plastered logs leading up through the smoke hole. Against these, burning logs are set on end. The smoke rises better, and the wide, approximately upright surface of the glowing or flaming wood distributes the heat more effectively than the horizontally laid fire of the ordinary box hearth. In *balagan* and *golomo* the chinks between the logs are stopped with moss and earth. Snow is thrown on so as to cover the whole. With the first sunny days of any length these dwellings become uninhabitable. The Tungus sybarite returns to his *chum*.

NATIVE TRIBES OF THE REGION

Of the present native inhabitants the vanishing Yenisei-Ostyak have been longer on the river than anyone else. Originally they were neighbors, though of very different origin, to the Samoyed in the mountains of the south—the Altai and the Sayan. Hundreds of long Siberian miles, the Yenisei- and Ugrian-Ostyak, and several mixed Turkic tribes now separate the Samoyed from the remnants of their ancestral stock in the south—the Kamasintz of the Sayan foothills and neighboring steppes.⁶ Like the other inhabitants of the northern region they now occupy, they have been driven thither by the pressure of the restless Turki and Mongols in the south. Long as their residence in the Arctic has been, it would seem that both they and the other immigrants have retained many of the qualities of mind and temper which they developed in other surroundings. How else account for the different manner in which they and, say, the Tungus respond, in this inner sphere, to the same environment?

THE TUNGUS

The Tungus is a practical person, unemotional, cheerful, with a slightly cynical outlook upon life. He believes implicitly in his shaman, it is true, but he attends to the things of the spirit to which the shaman ministers chiefly when some immediate practical need arises, some immediately personal crisis. The phenomena associated with illumination which are so impressive in the north do not appear to affect him greatly. Ask him what name he gives to the flickering fingers of the northern lights that beckon in the sky above him. He cocks a casual eye at the display and answers without interest: "It burns." The return of daylight is not welcomed by any ceremony. His first recognition of the participation of any power outside himself in the changes of the year will be, perhaps, a private visit to a shaman to get him to dedicate to the great god of good luck, the "owner" of all wild reindeer, the charm by which he hopes to procure himself a good season's hunting. Or, at most, there will be some quite local shamanizing at the first bit of open water to appear in which fishing is practicable.

To maintain a cheerful spirit in the face of the bleak dreariness of the north is apparently a principal condition on which man can endure its rigors. At any rate a disposition to enjoy whole-heartedly what simple pleasures life affords is everywhere apparent. The Tungus advise the alien wayfarer in the tundra to eat much and laugh often, and with both Tungus and Samoyed this is not less a matter of practice than of precept. But the Samoyed is a much more emotional person. It is impossible to think of a dignified Tungus pater familias watering his pannikin of tea with salt tears as he listens to a phonograph reproducing the dirge for the dead wife of his

⁶ Recent investigations tend to throw doubt on the conclusion reached by Castrén that this region of the Sayan Mountains was the original home of the Samoyedic stock. In any case, however, they are Neo-Siberians of southern origin—southern, that is, in relation to their present habitat.

youth which he sang beside her grave thirty years ago and repeated just now by request into the wonder-working machine in expectation of the cheering cup. The story-tellers vie with one another in relating the prodigies performed by heroes or heroines in pursuit of the objects of their passion. The change of season, the return of the friendly sun, is the occasion for the most elaborate of their ceremonies, to take part in which numbers of people travel great distances, suspending for the time being even the strict rule which forbids a woman to ride on a man's sledge. The grim aspects of the Polar environment, the deeper, longer darkness of the still farther north, have sunk into their souls. After the Yurak spring festival of the changing of the sledges of the gods, the old abandoned vehicle shrines are left on a hill, the runners pointing north towards the land of darkness and evil, of desolation and of things forgotten, and the new sledges with the rejuvenated gods in their places are headed south, where dwell the powers of light and good, and where the sun, describing his low arc, brings promise of a lengthening day.



FIG. 12—A Limpisk Tungus of the Hukachar clan, showing *vaasya* (fillet of squirrel tails) worn by married women.

THE YAKUT

Latest comers of all into the Arctic are the Yakut, a Turkic tribe, pushed northwards first by the Mongolic Buryat and more lately driven still farther north by the Russians, with whom in the seventeenth century they fought a notable fight. Their old occupation as herders of cattle they have not given up even on the miserable swampy pastures of the Vilui. Pushing hence northwestward toward the Limpisk Tundra, they have already displaced and sent still farther north to press upon the Samoyed near the right bank of the Yenisei a group of Tungus, partly Yakutized in a physical sense, wholly so in their language, the Dolgan. On the eastern border of

the Limpiisk Tundra, the Yakut have perforce abandoned the keeping of cattle and become deerherds like their Tungus neighbors. They do not confine themselves to this, however, and their herds are small. The headwaters of the Vilui are not far, as distances in the tundra go, from Lake Yessei, the eastward limit of Tungus wanderings in this part of the region. On the Vilui are other Yakut, and the river is a highway to the southeast where the Russians are settled on the Lena and where articles which prosperous Tungus herders desire may be obtained. This is the canny Yakut's opportunity. He becomes a trader and acquires much more wealth than his brothers on the Vilui with their half-starved little herds of cattle. To the Tungus both as producer (of furs and skins) and consumer (of tea, tobacco, rye meal, etc.) he is middleman and earns not a little of the unpopularity which often goes with this calling. It is the only instance in the northern Turukhansk District of the influence of a physical feature in causing a noticeable differentiation of existing cultures, and it affects only a small group. Elsewhere the general sameness of conditions allows no scope for anything of the kind.

NOMADISM AND TRIBAL RELATIONS

A true coast culture of fishermen or sea-hunters is not found within this region. The few people who frequent the coast proper of the Arctic retain their reindeer and do not usually remain near the sea in winter. In the tundra there are no barriers for people once acclimated to its hard conditions. The limits of the wanderings of a tribe are a matter of agreement with its neighbors (an agreement now given the character of law by Russian sanction or regulation) and the possession of the means of travel. The possession of reindeer implies this of necessity. Even a small herd soon consumes the moss in any particular locality. When the bucks begin to stray, the herdsman knows that it is time to strike camp and follow the herd to new pastures. It is not a matter of seasonal nomadism like that of the horse nomads in the south; the reindeer-breeder's wanderings have no periodicity; they depend, within the limits of the tribal territory, on the size and appetite of his herd.

The complete absence of any bond of attachment to the soil, this free-wandering mobility of all the tribes, the sameness of conditions under which life must be lived, all the circumstances tend to a general leveling and unifying of the Arctic cultures. Yet, under the obvious surface resemblances there still survive the peculiarities of belief and of social observances which long ago differentiated the various stocks of which the present population is made up. And there are evidences of an instinctive determination among the tribes to keep themselves distinct, as well as of the inevitable merging of their cultures into one another. The elaborate terminology of the chief industry, reindeer-breeding, which must have spread from a common center—the Limpiisk Tungus acknowledge their indebtedness to

the Samoyed in this matter—is distinct in every group. The original exogamous social organization of the Tungus has been converted by the necessities of their present life, which has led to the scattering of the original groups over great distances, into the practice of intermarriage within the group or, on their borders, of an extra-tribal unregulated intermarriage; but the old clan names persist. So, too, do the old inter-tribal jealousies in spite of the establishment of a Russian peace. It will require a whole day's session of the yearly *munyak* and all the strenuous effort of a pro-Yakut Tungus "prince" to compose a dispute on a point of etiquette between a Yessei Yakut and a Limpiiisk Tungus. Rival Samoyed and Yakut shamans pursue their quarrels beyond the grave; the victor in the struggle on this plane of life does not escape the posthumous enmity of his apparently beaten antagonist. A Tungus shaman sends a familiar grown mischievous to his own people to exhaust his malice upon the alien Samoyed. Like surroundings and like interests in the struggle for existence may do much towards the fusing of cultures and stocks, but the inveterate distinctions of belief and usage die hard.